

REMARKS

Claims 1-6 and 9-24 are pending in the application. Claim 4 has been cancelled from the application. New claims 25 and 26 have been added to the application. Therefore, claims 1-3, 5, 6, and 9-26 are at issue.

This amendment is submitted in accordance with 37 C.F.R. §1.116(a) and §1.116(b) in order to present the rejected claims in a better form for allowance or appeal. The amendment is necessary to eliminate rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103, and to overcome an obviousness-type double patenting rejection. This amendment was not presented earlier because the rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103 are new grounds of the rejection. This amendment should be entered because it places the application in better form for allowance or appeal, and the amendment does not require further searching or present any new issues.

Claim 1 has been amended to incorporate features of originally-filed claim 4. Support for this amendment can be found in originally-filed claim 4, and in the specification at page 11, lines 7-14, for example. New claims 25 and 26 find support in the specification in the examples; at page 12, lines 4-8; at page 13, lines 15-22; and originally filed claims 6 and 12.

Claims 1-6 and 9-24 stand rejected under 35 U.S.C. §102(b) as being anticipated by, or alternatively under 35 U.S.C. §103 as being obvious over, Wei et al U.S. Patent Publication No. 2002/0098159 ('159 publication). The examiner contends that the '159 publication discloses the claimed compositions and

methods, or renders the claimed compositions and methods obvious. In view of the amendments to the claims, and for the reasons set forth below, it is submitted that this rejection should be withdrawn.

The claims have been amended to recite an antimicrobial composition containing a substituted benzoic acid as the sole antimicrobial agent in the composition. As shown in the examples, the present antimicrobial compositions exhibit an excellent antimicrobial efficacy. The examples illustrate that both the substituted benzoic acid and the hydric solvent both are necessary components of the composition to provide antimicrobial effectiveness (Examples 2 and 3). Importantly, Example 8 shows that aliphatic carboxylic acids do not provide the antimicrobial activity achieved by the presently claimed composition. In particular, cyclohexanecarboxylic acid, an aliphatic acid that corresponds in structure to a claimed substituted benzoic acid, does not provide the antimicrobial activity of an aromatic carboxylic acid.

The '159 publication discloses a composition containing a proton donating agent and a surfactant. The '159 publication teaches that the composition preferably is "substantially free of salicylic acid." The '159 publication discloses that the essential proton donating agent can be an organic acid or a mineral acid. In the examples of acids at paragraph [0041], the '159 publication lists numerous aliphatic acids and benzoic acid as the sole aromatic acid. The preferred acids are aliphatic acids (paragraph [0043]). All examples of the '159 publication utilized pyrrolidone carboxylic acid. The '159 publication clearly avoids

aromatic carboxylic acids and specifically teaches away from using salicyclic acid which is utilized in the present examples and recited in dependent claims.

The '159 publication also discloses that a surfactant is an essential ingredient of the composition. The presently claimed compositions do not include a surfactant as an intentionally added ingredient. As stated in the specification, at page 5, lines 6 and 7 and at page 10, lines 10-13, the present compositions are free, or at least essentially free, of a surfactant. In particular, the specification at page 16, line 29 through page 17, line 9 teach that a surfactant is not an intentionally added ingredient in a present composition, but is present solely as an additive or by-product in another composition ingredient.

In contrast to the teachings of the '159 publication, the present claims recite a composition wherein (a) a substituted benzoic acid is the aromatic carboxylic acid and (b) is the sole antimicrobial agent in the composition and (c) the composition contains 0% to about 0.2%, by weight, of a surfactant, i.e., is essentially free of a surfactant. The '159 publication explicitly teaches that a surfactant is an essential component of the invention. In further contrast to the '159 publication, the present claims recite a substituted benzoic acid, whereas the '159 publication avoids such acids and exclude the presence of salicylic acid, which is a preferred aromatic acid used in the presently claims compositions.

It also should be noted that all of the examples of the '159 publication contain an amount of surfactant in excess of 0.2%, i.e., at least 0.25% in

Example 5, and no example contains an aromatic carboxylic acid, i.e., all examples in the '159 publication contain an aliphatic carboxylic acid (pyrrolidone carboxylic acid).

It is submitted that the present claims cannot be anticipated by the '159 publication because a difference exists between the '159 publication disclosure and the present claims. The '159 publication fails to teach a composition that contains a presently claimed aromatic carboxylic acid, i.e., a substituted benzoic acid, as the sole antimicrobial agent. Therefore, the rejection of the present claims as being anticipated by the '159 publication under 35 U.S.C. §102(b) should be withdrawn.

It is further submitted that the differences between present claims and the '159 publication would not have been obvious to a person skilled in the art under 35 U.S.C. §103. The '159 publication stresses the importance of including an essential surfactant in the composition. The '159 publication includes eight examples, and each example contains greater than 0.2%, by weight, of a surfactant. Furthermore, the '159 publication specifically teaches that a surfactant is an essential ingredient, whereas the present invention excludes a surfactant except for any inadvertently surfactant amounts included in another ingredient of the composition.

Furthermore, each example of the '159 patent utilizes an aliphatic carboxylic acid. The sole aromatic acid disclosed in the '159 patent is benzoic acid, which is included in a laundry list of aliphatic acids. In addition, the preferred acids of the '159

publication are aliphatic acids. From a reading of the '159 publication, a person skilled in the art would not have been motivated to substitute a presently claimed substituted benzoic acid for the proton donors recited in the '159 publication, including aliphatic carboxylic acids, mineral acids, and benzoic acid as the sole aromatic carboxylic acid.

In addition, it is evident that substantial differences exist between the presently claimed compositions and the compositions of the '159 publication. The '159 publication discloses that the aliphatic acids used in the composition effectively reduce microbial populations. In contrast, an aliphatic acid, i.e., cyclohexanecarboxylic acid, did not perform in the present compositions (see Example 8 of the present specification). The present invention, therefore, requires an aromatic carboxylic acid.

The '159 publication fails to teach or suggest a composition that contains (a) a substituted benzoic acid as the sole antimicrobial agent and (b) is essentially free of a surfactant, as presently claimed. From the teachings of the '159 publication, a person skilled in the art would not have been motivated to substitute a claimed aromatic acid for the acids disclosed in the '159 publication and omit a surfactant with any reasonable expectation of providing a useful antimicrobial composition.

In summary, persons skilled in the art simply would not be motivated to make the jumps in reasoning needed to arrive at the presently claimed invention after reading the '159 publication. Therefore, in view of the substantial differences between the '159 publi-

cation and the present claims, it is submitted that the rejection of the pending claims as being obvious over the '159 publication under 35 U.S.C. §103 should be withdrawn.

Claims 1-6 and 9-24 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-15 of U.S. Patent No. 6,861,397 ('397). In response, applicants submit a timely terminal disclaimer concurrently with this amendment. Therefore, the obviousness-type double patenting rejection of the pending claims has been overcome.

It is submitted that the claims are now of proper form and scope for allowance. An early and favorable action on the merits is respectfully requested.

Should the examiner wish to discuss the foregoing, or any matter of form in an effort to advance this application toward allowance, the examiner is urged to telephone the undersigned at the indicated number.

Respectfully submitted,

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